

BY: sbloss

PROJECT DESCRIPTION

GENERAL

THIS PORTION OF THE PROJECT INVOLVES THE RECONSTRUCTION OF THE EXISTING TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF MD 355 (WISCONSIN AVENUE AND ELM STREET / WAVERLY STREET IN MONTGOMERY COUNTY, MARYLAND. MD 355 IS ASSUMED TO RUN IN AN NORTH-SOUTH DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION WILL OPERATE IN A NEMA FOUR-PHASE, FULL-TRAFFIC-ACTUATED MODE WITH THE MD 355 APPROACHES OPERATING CONCURRENTLY AND THE ELM STREET / WAVERLY STREET APPROACHES OPERATING CONCURRENTLY.

AN ALTERNATE PEDESTRIAN PHASE IS PROVIDED ACROSS BOTH LEGS OF MD 355 AND PEDESTRIAN INDICATIONS ARE PROVIDED ACROSS THE NORTH LEG OF PIKESWOOD DRIVE.

TYPICAL MESSAGES FOR ACCESSIBLE PED SIGNALS

MD 355 (WISCONSIN AVENUE) AND ELM STEET/WAVERLY STREET – NORTH LEG

INTERSECTION WITH ANGLED CROSSING

WAIT: "WAIT TO CROSS WISCONSIN AT ELM AND WAVERLY. CROSSWALK ANGLES LEFT, WAIT." \*\*

WALK: RAPID TICK

MD 355 (WISCONSIN AVENUE) AND ELM STEET/WAVERLY STREET (PUSHBUTTON #30) – SOUTH LEG

STREETS AT 90 DEGREES

WAIT: "WAIT TO CROSS WISCONSIN AT ELM AND WAVERLY, WAIT." \*

WALK: RAPID TICK

MD 355 (WISCONSIN AVENUE) AND ELM STEET/WAVERLY STREET (PUSHBUTTON #31) – SOUTH LEG MEDIAN

STREETS AT 90 DEGREES

WAIT: "WAIT TO CROSS WISCONSIN AT ELM AND WAVERLY, WAIT." \*

WALK: RAPID TICK

MD 355 (WISCONSIN AVENUE) AND ELM STEET/WAVERLY STREET (PUSHBUTTON #33) – SOUTH LEG

INTERSECTION WITH ANGLED CROSSING

WAIT: "WAIT TO CROSS WISCONSIN AT ELM AND WAVERLY. CROSSWALK ANGLES LEFT, WAIT." \*\*

WALK: RAPID TICK

MD 355 (WISCONSIN AVENUE) AND ELM STEET/WAVERLY STREET (PUSHBUTTON #32) – SOUTH LEG MEDIAN

INTERSECTION WITH ANGLED CROSSING

WAIT: "WAIT TO CROSS WISCONSIN AT ELM AND WAVERLY. CROSSWALK ANGLES LEFT, WAIT." \*\*

WALK: RAPID TICK

WAVERLY STREET AT MD 355 (WISCONSIN AVENUE) – EAST LEG

STREETS AT 90 DEGREES

WAIT: "WAIT TO CROSS WAVERLY AT WISCONSIN, WAIT." \*

WALK: RAPID TICK

ELM STREET AT MD 355 (WISCONSIN AVENUE) – WEST LEG

STREETS AT 90 DEGREES

WAIT: "WAIT TO CROSS ELM AT WISCONSIN, WAIT." \*

WALK: RAPID TICK

\* MESSAGE USED IF DISTANCE FROM NEAREST PUSHBUTTON FOR PERPENDICULAR CROSSING IS < 10'  
\*\* MESSAGE USED IF CROSSWALK DIVERGES FROM OR CONVERGES WITH PARALLEL TRAFFIC

NOTE: MESSAGES FOR INTERSECTION CONFIGURATIONS, VARYING FROM THE ABOVE ARE TO BE APPROVED BY THE DIRECTOR, OFFICE OF TRAFFIC AND SAFETY.

CONTROLLER REQUIREMENTS

INSTALL A FULL-TRAFFIC-ACTUATED, EIGHT-PHASE CONTROLLER WITH SYSTEM PACKAGE HOUSED IN A NEMA SIZE "5" BASE MOUNTED CABINET.

MAINTENANCE OF TRAFFIC

THE FOLLOWING TRAFFIC CONTROL STANDARDS SHALL BE REFERENCED FOR THE PROJECT. ADDITIONAL TRAFFIC CONTROL STANDARDS MAY BE USED AS DIRECTED BY THE ENGINEER.

STANDARD NO. MD-104.04-02 (SHOULDER WORK) STANDARD NO. MD-104.04-14 (LEFT TURN BAY CLOSURE)  
STANDARD NO. MD-104.04-04 (LEFT LANE CLOSURE) STANDARD NO. MD-104.04-16 (INTERSECTION LEFT LANE, TURN BAY)  
STANDARD NO. MD-104.04-06 (RIGHT LANE CLOSURE)  
STANDARD NO. MD-104.04-08 (CENTER LANE CLOSURE)

EQUIPMENT LIST "A"

A. EQUIPMENT TO BE SUPPLIED BY THE SHA

CATEGORY CODE	QUANTITY	DESCRIPTION
900000	1 EACH	CONTROLLER CABINET, SIZE "S" W/CTRL, VIDEO INT, 1-8 CAMERAS
973023	79 S.F.	SHEET ALUMINUM SIGNS TO CONSIST OF (POLE MOUNT) : - 4 EACH R3-18 (36 IN. x 36 IN.) – MAST ARM MOUNT - 1 EACH R3-2 (30 IN. x 42 IN.) – MAST ARM MOUNT - 4 EACH R10-3(1) SIGN (9 IN. x 15 IN.) TO READ "PUSHBUTTON TO CROSS WISCONSIN AVENUE" - 2 EACH R10-3(1) SIGN (9 IN. x 15 IN.) TO READ "PUSHBUTTON TO CROSS WAVERLY STREET" - 2 EACH R10-3(1) SIGN (9 IN. x 15 IN.) TO READ "PUSHBUTTON TO CROSS ELM STREET" - 2 EACH M1-5(3) (78 IN x 24 IN) – MAST ARM MOUNT

MONTGOMERY COUNTY

C. EQUIPMENT TO BE SUPPLIED BY MONTGOMERY COUNTY

QUANTITY	DESCRIPTION
1 EACH	MONTGOMERY COUNTY SPLICE CABINET – POLE MOUNT

EQUIPMENT LIST "C"

C. EQUIPMENT TO BE REMOVED AND RETURNED TO SHA

ALL REMOVED SIGNAL MATERIALS SHALL BECOME PROPERTY OF THE CONTRACTOR

PROJECT CONTACTS

THE CONTACT PERSONS FOR SHA ARE AS FOLLOWS:

MS. CORREN JOHNSON  
CHIEF, TRAFFIC OPERATIONS DIVISION  
PHONE: (410) 787-7630

MR. TOM FOUNTAIN  
ASSISTANT DISTRICT ENGINEER – MAINTENANCE  
PHONE: (301) 513-7304

MR. VICTOR GRAFTON  
DISTRICT UTILITY ENGINEER  
PHONE: (301) 513-7350

MS. ANYESHA MOOKHERJEE  
ASSISTANT DISTRICT ENGINEER – TRAFFIC (MONTGOMERY)  
PHONE: (301) 513-7404

MR. KAMAL HAMUD  
TEAM LEADER, TRAFFIC SIGNALS  
MONTGOMERY COUNTY DOT  
DIVISION OF TRAFFIC ENGINEERING AND OPERATIONS  
PHONE: (240) 777-8761

MR. BOB RICKETTS  
MONTGOMERY COUNTY SIGNAL SHOP  
PHONE: (240) 876-3681

MR. ROBERT SNYDER – OOTS  
ASSISTANT DIVISION CHIEF, TRAFFIC OPERATIONS  
PHONE: (410) 787-7630

MR. EDWARD RODENHIZER – OOTS  
CHIEF, SIGNAL OPERATIONS SECTION  
PHONE: (410) 787-7670

EQUIPMENT LIST "B"

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR

CATEGORY CODE	QUANTITY	DESCRIPTION
120500	1 EACH	MAINTENANCE OF TRAFFIC
203030	10 C.Y.	TEST PIT EXCAVATION
585621	515 L.F.	12 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES
585625	120 L.F.	24 INCH HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
655383	75 S.F.	BRICK SIDEWALKS
801004	21 C.Y.	CONCRETE FOR SIGNAL FOUNDATION
802501	630 L.F.	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
805125	140 L.F.	2 INCH SCHEDULE 80 RIGID PVC CONDUIT-TRENCHED
805135	20 L.F.	3 INCH SCHEDULE 80 RIGID PVC CONDUIT-TRENCHED
805140	155 L.F.	4 INCH SCHEDULE 80 RIGID PVC CONDUIT-TRENCHED
805145	45 L.F.	2 INCH SCHEDULE 80 RIGID PVC CONDUIT-SLOTTED
805155	335 L.F.	4 INCH SCHEDULE 80 RIGID PVC CONDUIT-SLOTTED
807202	1 EACH	METERED SERVICE PEDESTAL
810022	90 L.F.	ELECTRICAL CABLE 1-CONDUCTOR NO. 8 AWG-THHN/THWN
811001	7 EACH	FURNISH AND INSTALL ELECTRICAL HANDHOLE
813015	128 S.F.	INSTALL OVERHEAD SIGN
818004	11 EACH	10 FOOT BREAKAWAY PEDESTAL POLE
818036	1 EACH	STEEL POLE WITH A SINGLE 50 FOOT MAST ARM
818051	1 EACH	STEEL POLE WITH TWIN 50 FOOT AND 70 FOOT MAST ARMS
831010	2 EACH	LED LAMP AND LUMINAIRE
832018	300 L.F.	CABLE – 1 CONDUCTOR, NO 2 AWG, TYPE USE, 600V
837001	10 EACH	GROUND ROD – 3/4 INCH DIAMETER X 10 FOOT LENGTH
860284	24 EACH	12 IN. LED VEHICULAR TRAFFIC SIGNAL HEAD SECTION
860290	5 EACH	CUT, CLEAN, GALVANIZE AND CAP TRAFFIC SIGNAL STRUCTURE
861105	1530 L.F.	ELECTRICAL CABLE – 2 CONDUCTOR (NO. 14 AWG)
861106	410 L.F.	ELECTRICAL CABLE – 3 CONDUCTOR (NO. 14 AWG)
861107	1410 L.F.	ELECTRICAL CABLE – 5 CONDUCTOR (NO. 14 AWG)
861108	820 L.F.	ELECTRICAL CABLE – 7 CONDUCTOR (NO. 14 AWG)
866103	2 EACH	15 FOOT LIGHTING ARM ON SIGNAL STRUCTURE
871041	1 EACH	INSTALL AUXILIARY CABINET WITH TERMINAL STRIP – POLE MOUNT
871202	1 EACH	INSTALL CONTROLLER AND CABINET – BASE MOUNT
800000	1 EACH	REMOVE AND DISPOSE OF EXISTING MATERIAL AND EQUIPMENT
800000	8 EACH	16 INCH COUNTDOWN PEDESTRIAN SIGNAL HEAD
800000	10 EACH	AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON STATION
800000	1 EACH	2-WIRE CENTRAL CONTROL UNIT
800000	2 EACH	PAINT SIGNAL AND MAST ARM POLE FEDERAL BROWN NO. 595a-20040
800000	11 EACH	PAINT PEDESTAL POLE FEDERAL BROWN NO. 595a-20040



STATE OF MARYLAND  
DEPARTMENT OF TRANSPORTATION  
STATE HIGHWAY ADMINISTRATION  
OFFICE OF TRAFFIC & SAFETY  
TRAFFIC ENGINEERING DESIGN DIVISION  
MD 355 (Wisconsin Avenue) at Elm St/Waverly Street  
Bethesda, Maryland

TRAFFIC SIGNALIZATION PLAN

SCALE	NONE	ADVERTISED DATE	3/05/2013	CONTRACT NO.	MQ175177
DESIGNED BY	S. Bloss	COUNTY	Montgomery		
DRAWN BY	S. Bloss	LOGMILE	15035501.54		
CHECKED BY	N. Leary	TMS NO.	L498		
F.A.P. NO.	SEE TITLE SHEET	TOD NO.			
TS NO.	4909A	DRAWING	TSP-12	OF	20
SHEET NO.	###	OF	###		



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